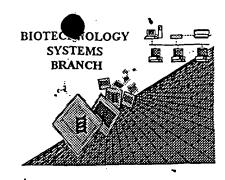
RAW SEQUENCE LISTING ERROR REPORT



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/749, 60/Source: 1600Date Processed by STIC: 2/(1/200)

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,

2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216. PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax) PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE <u>CHECKER</u> <u>VERSION 3.0 PROGRAM</u>, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

Checker Version 3.0

The Checker Version 3.0 application is a state-of the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 – 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address: http://www.uspto.gov/web/offices/pac/checker

SEQUENCE LISTING <110 Nicolaides, Nicholas Grasso, Luigi Sass, Philip Kinzler, Kenneth Vogelstein, Bert <120 A method for generating hypermutable plants <130 01107.00069 <150 60/183,333 <151 2000-02-18 <160 15 <170 FastSEQ for Windows Version 3.0 <210 1 <211 17 <212 DNA <213 Human sapiens <400 1 atgcaaggag attcttc 17 <210 2 <211 21 <212 DNA <213 Human sapiens <400 2 tcatgccaat gagatggttg c 21 <210 3 <211 2589 <212 DNA <213 Human sapiens <400 3 atggagcgag ctgagagctc gagtacagaa cctgctaagg ccatcaaacc tattgatcgg 60 aagtcagtcc atcagatttg ctctgggcag gtggtactga gtctaagcac tgcggtaaag 120 gagttagtag aaaacagtct ggatgctggt gccactaata ttgatctaaa gcttaaggac 180 tatggagtgg atcttattga agtttcagac aatggatgtg gggtagaaga agaaaacttc 240 gaaggettaa etetgaaaca teacacatet aagatteaag agtttgeega eetaacteag 300 gttgaaactt ttggctttcg gggggaagct ctgageteae tttgtgeaet gagegatgte 360 accattteta eetgeeaege ateggegaag gttggaaete gactgatgtt tgatcacaat 420 gggaaaatta tooagaaaac cocotacooc cgcoccagag ggaccacagt cagcgtgcag 480 cagttatttt ccacactacc tgtgcgccat aaggaatttc aaaggaatat taagaaggag 540 tatgccaaaa tggtccaggt cttacatgc

> sample of submitted file - major format even

Det sample Sequence Listery (attacked) for valid format

FYL

Review the Sequence Listing to insure a corresponding explanation is presented in the <220> to <223> fields of each sequence using n or Xaa.

```
Smith, John; Smithgene Inc.
 <110>
 <120>
              Example of a Sequence Listing
              01-00001
 <130>
                                                                                :=:
              PCT/EP98/00001
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 <1(1>
              1998-12-31
              US 08/999,999
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              1997-10-15
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<210>
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              389
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             CDS
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<222>
              (279) . . . (389)
<300>
<301>
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             Isolation and Characterization of a Gene Encoding a
<302>
             Protease from Paramecium sp.
<303>
             Journal of Genes
<304>
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<305>
             4.
<306>
             1 - 7
<307>
             1988-06-31
             123456
<308>
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             1988-06-31
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agcugtaged
             attectgtgt
                          cctcttctct
                                       ctgggcttct
                                                    caccetgeta
                                                                 atcagatete
                                                                                 F
agggagagtg.
             tcttgaccct
                                                    caggcaggca
                                                                                       120
                          cctctgcctt
                                       tgcagcttca
                                                                 ggcaggcagc
                                                                                       180
rgargragea
             attgctggca
                          gtgccacagg
                                       cttttcagcc
                                                    aggettaggg
                                                                 tgggttccgc
                                                                                      240
cgcggcgcgg
             cggcccctct
                          cgcgctcctc
                                       tcgcgcctct
                                                    ctctcgctct
                                                                 cctctcgctc
```

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Appendix 3, page 2

ggac	ctgat	t ag	ggtgaq	gcag	gagg	aggggg	ca	gttago	:	atg Met 1	gtt Val	tca Ser	atg Met	ttc Phe 5	agc Ser	296
ttg Leu	tct Ser	ttc Phe	aaa Lys 10	tgg Trp	. cct Pro		ttt Phe	tgt Cys 15	ttg Leu	ttt Phe	gtt Val	tgt Cys	ttg Leu 20	ttc Phe	caa Gln	344
tgt Cys	ccc Pro	aaa Lys 25	gtc Val	ctc Leu	ccc Pro	tgt Cys	cac His 30	tca Ser	tca Ser	ctg -Leu	cag Gln	ccg Pro 35	aat Asn	ctt ⇒Levi-		389
<210	>	2						•						<u>.</u>	Ļ	
<211		37								10	•					
<212:		PR Pa		ium s	р.					•						
				·	•									·		
<400		2		-						.	•	0.1	51	_		
Het 1	Val	Ser	Net	Phe 5	Ser	Leu	Ser	Phe	Lys 10	Trp	Pro	Cly	Php	Cys 15	Leu -	
Phe	Val	Cys	Leu 20	Phe	Cln	Cys	Pro	Lys 25	Va l	Leu	Pro	Cys	His 30	Ser	Ser	
Leu	Gln	Pro 35	۸sn	Ļeu												
<210>		3														
<211>		11														
<212><213>		PR1		al Sc	ouene	.0								•		
(213)		,,,,		50	quenc											
<220> <223>		Des lin	igned ker b	l pept etwee	ide b	ased o	on si: a and	ze and beta	pola chair	rity ns of	to ac Prote	t as in XY	a Z .			
<400>		3														
Net 1	Val	Λsn	Leu	Glu 5	Pro	Met	His	Thr	Clu 10	Ilc						
<210°>		4														
<400> 000		4														

[Annex VIII follows]

E

table. The numeric identifier shall be used only in the "Sequence Listing." The order and presentation of the items of information in the "Sequence Listing" shall conform to the arrangement given below. Each item of information shall begin on a new line and shall begin with the numeric identifier enclosed in angle brackets as shown. The submission of those items of information designated with an "M" is mandatory. The submission of those items of information designated with an "O" is optional. Numeric identifiers <110> through <170> shall only be set forth at the beginning of the "Sequence Listing." The following table illustrates the numeric identifiers.

Numeric Identifier	Definition	Comments and Format	Mandatory (M) or Optional (O)
<110>	Applicant	Preferably max. of 10 names; one name per line; preferable format: Surname, Other Names and/or Initials	M · ·
<120>	Title of Invention	·	м
<130>	File Reference	Personal file reference	M when filed prior to assignment of appl. number
<140>	Current Applica- tion Number	Specify as: US 07/999,999 or PCT/US96/99999	M, if available
<141>	Current Filing Date	Specify as: yyyy-mm-dd	M, if available
<150>	Prior Application Number	Specify as: US 07/999,999 or PCT/US96/99999	M, if applicable include priority documents under 35 USC 119 and 120
<151>	Prior Application Filing Date	Specify as: yyyy-mm-dd	M, if applicable
<160>	Number of SEQ ID NOs	Count includes total number of SEQ ID NOs	М
<170>	Software	Name of software used to create the Sequence Listing	0 =
<210>	SEQ ID NO:#:	Response shall be an integer representing the SEQ ID NO shown	м .
<211>	Length	Respond with an integer expressing the number of bases or amino acid residues	M

* .				:
<212>	Туре	Whether presented sequence mole-cule is DNA,	М	
		RNA, or PRT (protein). If a nucleotide	•	
		sequence con- tains both DNA and RNA frag-		
-		ments, the type shall be "DNA." In ad-	••	•
		dition, the combined DNA/		•
	• • •	RNA molecule - shall be further	. ,	ئن بحد
٠		described in the <220> to		Language
		<223> feature section.	* 💥 .	
<213>	Organism	Scientific name, i.c. Genus/species,	М	
		Unknown or Artifi- cial Sequence. In		•
		addition, the "Unknown" or		
		"Artificial Sequence" organisms		
	<i>,</i> %	shall be further described in the		
	,	<220> to <223> feature section.		
<220>	, Feature ,	Leave blank after <220>. <221-223>	M, under following	
		provide for a description of	tions: if "Xaa," or	
		points of bio- logical signi-	ified or t L-amino a	cid or
		ficance in the sequence.	modified l used in a	se-
			quence; i: ISM is "A cial Seque	rtifi-
			"Unknown"; molecule	; if
			combined [
<221>	Name/Ķey	Provide appropriate identifier for		nditions:⊨
		feature, pre- ferably from	if "n," "> a modified	dorun-
		WIPO Standard ST.25 (1998),	usual L-an acid or mo	dified
		Appendix 2, Tables 5 and 6	base was u a sequence	
<222>	Location	Specify location within sequence;	M, under t lowing cor	
		where appropriate state number of	if "n," "X a modified	aa," or
		first and last	usual L-am	nino
		bases/amino acids	acid or mo	oartr <u>e</u> d

. •	•			:
,		in feature		base was used in a sequence
<223>	Other Infor- mation	Other relevant information; four lines maximum		M, under the following conditions: if "n," "Xaa," or a modified or unusual L-amino acid or modified base
-		·	.	was used in a sequence; if ORGANISM is "Artificial Sequence" or
		•		"Unknown"; if————————————————————————————————————
<300>	Publication Information	Leave blank [:] after <300>	in the second	0
<301>	Authors	Preferably max of ten named authors of publication; specify one name per line; preferable format: Surname, Other Names and/or Initials		0
<302>	// Title			0
<303>	Journal .			0
<304>	Volume	·		0
<305>	Issue			0
<306>	Pages			0
<307>	Date	Journal date on whice data published; specify as yyyy-mm-dd, MMM-yyyy or Season-yyyy	h	O
<308>	Database Accession Number	Accession number assigned by data-base including database name	,	0
<309>	Database Entry Date	Date of entry in database; specify as yyyy-mm-dd or MMM-yyyy		
<310>	Patent Document Number	Document number; for patent-type citations only. Specify as, for example, US 07/999,999	•	0

<311>_	Patent Filing Date	Document filing date, for patent-type citations only; specify as yyyy-mm-dd	•
<312>	Publication Date	Document publication date, for patent-type citations only; specify as yyyy-mm-dd	•
<313>	Relevant Residues	FROM (position) TO (position)	0
<400>	Sequence	SEQ ID NO should follow the numeric identifier and should appear on the line preceding the actual sequence	M

- 5. Section 1.824 is revised to read as follows:
- 1.824 Form and format for nucleotide and/or amino acid sequence submissions in computer readable form.
- (a) The computer readable form required by 1.821(e) shall meet the following specifications:
- (1) The computer readable form shall contain a single "Sequence Listing" as either a diskette, series of diskettes, or other permissible media outlined in paragraph (c) of this section.
- (2) The "Sequence Listing" in paragraph (a) (1) of this section shall be submitted in American Standard Code for Information Interchange (ASCII) text. No other formats shall be allowed.
- (3) The computer readable form may be created by any means, such as word processors, nucleotide/amino acid sequence editors or other custom computer programs; however, it shall conform to all specifications detailed in this section.
- (4) File compression is acceptable when using diskette media, so long as the compressed file is in a self-extracting format that will decompress on one of the systems described in paragraph (b) of this section.
- (5) Page numbering shall not appear within the computer readable form version of the "Sequence Listing" file.
- (6) All computer readable forms shall have a label permanently affixed thereto on which has been hand-printed or typed: the name of the applicant, the title of the invention, the date on which the data were recorded on the computer readable form, the operating system used, a reference number, and an application serial number and filing date, if known.
- (b) Computer readable form submissions must meet these format requirements:
- (1) Computer: IBM PC/XT/AT, or compatibles, or Apple Macintosh;
- (2) Operating System: MS-DOS, Unix or Macintosh;